

REMARKS

Claims 1, 3-10, and 12-20, 22, and 24-27 are currently pending in the application. By this amendment, claims 1, 8, and 20 are amended, and claims 24 - 27 are added for the Examiner's consideration. Moreover, claims 21 and 23 are canceled without prejudice or disclaimer. The above amendments and new claims do not add new matter to the application and are fully supported by the original disclosure. For example, support for the amendments and new claims is provided in the claims as originally filed and at Figures 1 and 2. Particularly, Figure 1 of the instant application shows the spaced apart recesses are formed within the concave recess of the bottom lip. Moreover, Figure 1 of the instant application shows that the recess comprises a surface that is conterminous with the bevel and, in an assembled state, is substantially horizontal. Also, Figure 2 and paragraph 0022 of the published application (US 2005/0144878) expressly teach that boards connected to one another at the transverse edges are not locked in the horizontal direction. Lastly, Figure 2 shows a plurality of spaced apart recesses formed in a substantially flat surface of a bottom lip of the transverse edge. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

35 U.S.C. §103 Rejection

Claims 1, 8, 16, and 22 are rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson (U.S. Pub. No. 2003/0079820) in view of Olofsson et al. (U.S. Pat. No. 6,682,254).

Claims 3, 6, 9, 10 and 19 are rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson in view of Olofsson et al. and further in view of Thiers (U.S. Pub. No. 2002/0056245).

Claims 4, 5, 15, and 17 are rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson in view of Olofsson et al. and further in view of Kornicer et al. (U.S. Pub. No. 2003/0035921).

Claims 7, 12-14, and 20 are rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson in view of Olofsson et al. and further in view of Hall (U.S. Pat. No. 347,425).

Claim 18 is rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson in view of Olofsson et al. and further in view of Smid (U.S. Pat. No. 6,012,255).

Claims 21 and 23 are rejected under 35 U.S.C. §103(a) for being unpatentable over Palsson in view of Olofsson et al. and further in view of Schneider (U.S. Pat. No. 6,385,936).

These rejections are respectfully traversed for the following reasons.

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.¹ Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP

¹ While the *KSR* court rejected a rigid application of the teaching, suggestion, or motivation (“TSM”) test in an obviousness inquiry, the [Supreme] Court acknowledged the importance of identifying “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obviousness determination. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.*, --- U.S. ---, 127 S.Ct. 1727, 1731 (2007)).

§2142. Applicants submit that no proper combination of the applied art teaches or suggests each and every feature of the claimed invention.

Claims 1, 8, 16, and 22 in view of Palsson and Olofsson

As previously discussed, the present invention relates to a building board made of OSB (oriented strand board) which can be laid on beams in order to form a subfloor. Non-limiting exemplary implementations of the invention provide an OSB building board for forming subfloors such that the boards can be reliably oriented parallel to one another and connected to one another. Independent claims 1 and 8 recite, among other features, a tongue having a convex underside and a bevel that is a flat or planar surface. More specifically, claim 1 recites:

... the tongue on the longitudinal edge comprises a bevel and a recess adjacent the bevel ...

wherein the groove on the longitudinal edge is bounded by a top lip and a bottom lip, the bottom lip projects laterally beyond the top lip and has a concave recess over the entire length, and the tongue has a convex underside which corresponds to the recess, and the bevel is a flat or planar surface.

Also, claim 8 recites:

... wherein a front edge of the tongue of the first longitudinal edge comprises a bevel and a recess formed in the tongue adjacent to the bevel, the bevel is a flat or planar surface, the bottom lip of the second longitudinal edge has a concave recess over its length, and the tongue of the first longitudinal edge has a convex underside which corresponds to the concave recess.

Applicants submit that no proper combination of the applied references discloses or suggests this combination of features. More specifically, neither Palsson nor Olofsson discloses or suggests a tongue having a convex underside and a bevel where the bevel is a flat or planar surface. Instead, the portion of Palsson that the Examiner identifies as the bevel is curved and/or wavy. As such, the bevel is not flat or planar, as recited in the claimed invention. The Examiner

acknowledges this on page 12 of the outstanding Office Action. As such, Palsson and Olofsson do not disclose or suggest a tongue having a convex underside and a bevel that is a flat or planar surface, and the rejection should be withdrawn.

Moreover, Applicants incorporate by reference and repeat the arguments (set forth in the response dated September 4, 2007) that no proper combination of Palsson and Olofsson suggests a recess adjacent the bevel. Generally speaking, and in accordance with those arguments, Applicants submit that Palsson does not even disclose a bevel as the term is used in Applicants' invention and as would be understood by those of ordinary skill in the art. Instead, Palsson discloses a wavy or curved surface that does not constitute a bevel. Additionally, Palsson does not disclose a recess in the tongue. Therefore, Palsson cannot be said to suggest a recess adjacent a bevel. Olofsson, on the other hand, discloses a tongue having a bevel at its distal end, and a recess at its proximate end. However, the recess is not adjacent the bevel. Instead, there are other features between the recess and bevel. As such, Palsson and Olofsson fail to disclose or suggest a tongue having a recess adjacent the bevel, as recited in claims 1 and 8.

Therefore, the applied references do not disclose or suggest each and every feature of independent claims 1 and 8. As a result, the combination of Palsson and Olofsson cannot render claims 1 and 8 obvious.

Claims 16 and 22 depend from allowable claims 1 and 8, and are allowable at least for the reasons discussed above with respect to the independent claims. Moreover, the applied references do not disclose or suggest that the bevel is conterminous with both the recess and the convex underside of the tongue, as further recited in claim 22.

The Examiner contends that the bevel of Palsson constitutes the entire upper surface of the tongue, such that adding Olofsson's recess to Palsson would place the recess as being

conterminous with the convex underside of the tongue (Office Action, page 4). Applicants respectfully disagree.

The Examiner's explanation of the references and conclusion of obviousness amounts to a thinly veiled assertion of inherency. That is, the Examiner appears to be of the opinion that adding the recess of Olofsson to Palsson would necessarily result in the recess being adjacent to and conterminous with the bevel. Applicants disagree that such a result necessarily flows from the teachings of the references, and note that MPEP §2112 provides the following guidance regarding rejections based upon inherency:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

...

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)

Applicants submit that it does not necessarily flow from the teachings of Olofsson and Palsson that a recess added to Palsson would be adjacent to and conterminous with the alleged bevel of Palsson. For example, FIG. 2 of Palsson, which the Examiner relies on in making the rejection, shows that the tongue 11 includes a substantially vertical surface above what the Examiner identifies as the bevel. The recess of Olofsson could be formed in that vertical surface of Palsson with a portion of the vertical surface remaining between the recess and the alleged

bevel. In such a case, the recess would not be adjacent to and conterminous with the bevel because a portion of the vertical surface would be between the recess and the alleged bevel. Therefore, since the Examiner's assertion does not necessarily flow from the teachings of Olofsson to Palsson, Applicants submit that the conclusion of inherency is improper and should be withdrawn.

Accordingly, Applicant respectfully request that the §103 rejection of claims 1, 8, 16, and 22 be withdrawn.

Claims 3, 6, 9, 10 and 19 in view of Palsson, Olofsson, and Thiers

Claims 3, 6, 9, 10, and 19 depend from allowable claims 1 and 8, and are allowable for the reasons discussed above with respect to claims 1 and 8. Moreover, Thiers does not compensate for the deficiencies of Palsson and Olofsson with respect to claims 1 and 8. That is, Thiers, like Palsson and Olofsson, does not disclose a tongue having a convex underside, a bevel, and a recess adjacent the bevel, wherein the bevel is a flat or planar surface.

Accordingly, Applicant respectfully request that the §103 rejection of claims 3, 6, 9, 10, and 19 be withdrawn.

Claims 4, 5, 15, and 17 in view of Palsson, Olofsson, and Kornicer

Claims 4, 5, 15, and 17 depend, respectively, from allowable claims 1 and 8, and are allowable for the reasons discussed above with respect to claims 1 and 8. Moreover, Kornicer does not compensate for the deficiencies of Palsson and Olofsson with respect to claims 1 and 8. That is, Kornicer, like Palsson and Olofsson, does not disclose a tongue having a convex underside, a bevel, and a recess adjacent the bevel, wherein the bevel is a flat or planar surface.

Accordingly, Applicant respectfully request that the §103 rejection of claims 4, 5, 15, and 17 be withdrawn.

Claims 7, 12-14, and 20 in view of Palsson, Olofsson, and Hall

Independent claim 20

By this response, independent claim 20 is amended to recite that the plurality of spaced apart depressions are formed in the concave recess of the bottom lip. More specifically, claim 20 recites:

wherein the groove on the longitudinal edge is bounded by a top lip and a bottom lip, the bottom lip projects laterally beyond the top lip and has a concave recess over the entire length, the tongue has a convex underside which corresponds to the recess, and the bottom lip has a plurality of spaced apart depressions formed in the concave recess and configured to accommodate a countersunk nail head or screw head.

Applicants submit that this combination of features is not disclosed or suggested by the applied art. More specifically, Applicants incorporate by reference and repeat the arguments (previously set forth in the response dated September 4, 2007) that Hall does not disclose or suggest recesses formed in a bottom lip that bounds a groove. Instead, Hall discloses spaced apart recesses in a flange. However, Halls' flange is not a bottom lip that bounds a groove of a tongue and groove connection.

Moreover, Hall does not disclose or suggest spaced apart recesses formed in a concave recess. Instead, Hall clearly shows that the spaced apart recesses "c" are formed on a flat surface of the flange "B". In contrast, embodiments of Applicants' invention have spaced apart recesses formed in a concave recess of a groove. This is simply not disclosed or suggested by Hall.

Therefore, the applied art fails to disclose or suggest all of the features of claim 20. Accordingly, Applicants respectfully request that the rejection of claim 20 be withdrawn.

Dependent claims 7 and 12-14

Claims 7 and 12-14 depend from allowable independent claims, and are allowable based upon the allowability of the respective independent claims. Moreover, the applied art does not disclose or suggest all of the features of these dependent claims.

For example, no proper combination of the applied art suggests the groove of the second transverse edge comprises a top lip and a bottom lip, the bottom lip of the second transverse edge having a plurality of spaced apart recesses, as recited in claim 13. Also, claim 13 depends from claim 12, which recites a plurality of spaced apart recesses provided along the bottom lip of the second longitudinal edge. Thus, the invention of claim 13 includes both: (i) spaced apart recesses on the bottom lip of the longitudinal edge, and (ii) spaced apart recesses on the bottom lip of the transverse edge. None of the applied references, in combination or alone, disclose this combination of features.

For example, Palsson and Olofsson do not disclose a plurality of spaced apart recesses. While Hall does disclose spaced apart recesses on a flange of a wall tile, Hall does not disclose or suggest spaced apart recesses on both a longitudinal edge and a transverse edge. Instead, Hall only shows the spaced apart recesses on a single edge “B”. Therefore, none of the applied references discloses or suggests both (i) spaced apart recesses on the bottom lip of the longitudinal edge, and (ii) spaced apart recesses on the bottom lip of the transverse edge.

The Examiner appears to be of the opinion that it would have been obvious to add spaced apart recesses to the transverse edge of Palsson based upon a “duplication of parts” rationale. Applicants respectfully disagree, and submit that the Examiner is misapplying the “duplication

of parts” rationale in this instance. MPEP §2144.04 provides the following guidance regarding duplication of parts as it pertains to obviousness:

In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) (Claims at issue were directed to a water-tight masonry structure wherein a water seal of flexible material fills the joints which form between adjacent pours of concrete. The claimed water seal has a "web" which lies in the joint, and a plurality of "ribs" projecting outwardly from each side of the web into one of the adjacent concrete slabs. The prior art disclosed a flexible water stop for preventing passage of water between masses of concrete in the shape of a plus sign (+). Although the reference did not disclose a plurality of ribs, the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.).

Claim 13 does not recite a mere duplication of parts of claim 12. Instead, claims 12 and 13 are directed to different features of the invention. That is, claim 12 recites features associated with a bottom lip of a longitudinal edge of the board, while claim 13 recites features associated with a bottom lip of a transverse edge of the board. The bottom lip of the longitudinal edge is defined as having a concave recess over its entire length and an upwardly projecting extension that locks connected boards in a horizontal direction. In contrast, the bottom lip of the transverse side is not recited as having such additional features. Therefore, the bottom lip of the longitudinal side and the bottom lip of the transverse side are distinct features, and it would not be a mere duplication of parts to add spaced apart recesses to the bottom lip of the transverse side.

Accordingly, Applicants respectfully request that the rejection of claims 7 and 12-14 be withdrawn.

Claim 18 in view of Palsson, Olofsson, and Smid

Claim 18 depends from allowable claim 8, and is allowable for the reasons discussed above with respect to claim 8. Moreover, Smid does not compensate for the deficiencies of

Palsson and Olofsson with respect to claim 8. That is, Smid, like Palsson, does not disclose a tongue of the first longitudinal edge have a convex underside, a bevel on its front edge, and a recess adjacent the bevel, wherein the bevel is a flat or planar surface.

Accordingly, Applicant respectfully request that the §103 rejection of claim 18 be withdrawn.

Claims 21 and 23 in view of Palsson, Olofsson, and Schneider

By this amendment, claims 21 and 23 are canceled. Therefore, the rejection of these claims is moot and should be withdrawn. Accordingly, Applicant respectfully request that the §103 rejection of claim 18 be withdrawn.

However, as the subject matter of claims 21 and 23 has been incorporated into independent claims 1 and 8, respectively, Applicants take this opportunity to traverse the rejection based upon Palsson, Olofsson, and Schneider. As already discussed herein, independent claims 1 and 8 recite, among other features, a tongue having a convex underside and a bevel that is a flat or planar surface. No proper combination of Palsson, Olofsson, and Schneider discloses or suggests this combination of features.

The Examiner asserts that Palsson discloses a tongue having a convex underside, a bottom lip having a concave recess corresponding to the convex underside, and a bevel on the tongue. The Examiner acknowledges that Palsson does not disclose a recess adjacent the tongue. The Examiner also acknowledges that Palsson does not disclose that the bevel is a flat or planar surface. However, the Examiner contends that Olofsson shows a recess, that it would have been obvious to modify Palsson to add such a recess, and that the recess would be adjacent the bevel. Moreover, the Examiner asserts that Schneider shows a flat or planar bevel, and that it would

have been obvious to further modify Palsson to include such a flat or planar bevel to provide a tapered surface that would facilitate assembly. Applicants respectfully disagree.

Applicants submit that the Examiner's reason for combining the references is inconsistent with the teachings of Palsson, such that the modification suggested by the Examiner would not have been obvious to one of ordinary skill in the art. In fact, Palsson appears to teach away from the proposed modification, because Palsson teaches assembling boards using a tilting and turning motion while Schneider teaches that the flat bevels facilitate assembly using a sliding (i.e., translational, not turning) motion.

More specifically, Palsson discloses that the longitudinal edges of the boards are assembled by tilting one board relative to another, and applying a turning motion to snap the board together. This is clearly shown in FIG. 2, which the Examiner relies upon in making the rejection based upon Palsson. This is also described in many instances in Palsson's specification:

The tongue of the tilted floor element is then inserted into the groove of the female joining member of the already installed floor element or elements. The tilted floor element is then turned downwards, with its lower edge as a pivot axis, so that the lip eventually snaps into the lower side groove where the decorative upper layer of the floor elements are mainly parallel.
(Paragraph 0010, emphasis added).

...

The tongue 11 of the tilted floor element 1 is then inserted into the groove 13 of the female joining member 10^{II} of the already installed floor element 1 or elements 1, whereby the tilted floor element 1 is turned downwards, with its lower edge as a pivot axis, so that the lip 15 eventually falls into the lower side 5 groove 12 where the decorative upper layer 3 of the floor elements 1 are mainly parallel.
(Paragraph 0038, emphasis added).

In contrast to Palsson, Schneider discloses that two adjacent boards are joined by pushing them together horizontally. When the two tiles are pushed together, portions of the locking elements bend (i.e., undergo elastic deformation) and then snap back into a locked position (see,

e.g., lines 55-56 of col. 1; lines 4-6 of col. 2; and lines 11-15 of col. 4). To facilitate the sliding joining motion, the front edges of the grooves are tapered. This is clearly shown in FIGS. 2-4, where it can be seen that edges 32, 36 and 46, 48 are tapered for smoothing the progress of the linear sliding motion. However, contrary to the Examiner's assertion, making the surfaces of Palsson flat (like Schneider) would not facilitate assembly of the Palsson panels because Palsson does not use a sliding motion to push two adjacent panels together. Instead, Palsson explicitly discloses that longitudinal edges of adjacent panels are joined by tilting and turning, not horizontal sliding. As used in Palsson, the tilting and turning would seemingly require a curved surface. Therefore, the Examiner's purported reason for combining the features of the references is not applicable to Palsson, and would not have prompted the skilled artisan to make such a combination.

Moreover, Palsson teaches away from the assembly technique described by Schneider. More specifically, Palsson teaches that assembly techniques that involve bending and/or sliding are disadvantageous because such techniques leave undesirable gaps between the boards. These gaps are visually unappealing and can allow dirt and moisture to penetrate the floor (paragraphs 0005 - 0008). More specifically, Palsson discloses:

[0009] It is, through the present invention, made possible to solve the above mentioned problems whereby a floor element which can be assembled without having to be slid along already assembled floor elements has been achieved. (Paragraph 0009, emphasis added).

Therefore, Palsson teaches directly away from installation that requires sliding and bending of portions of the boards. In contrast, Schneider discloses a board that is assembled by using both sliding and bending of portions of the board. And the flat edges 32, 36 and 46, 48 are provided to facilitate this type of installation that Palsson teaches away from. Therefore, there is

no identifiable reason why one of ordinary skill in the art would incorporate the flat edges of Schneider into the apparatus of Palsson, and the rejection based upon Palsson, Olofsson, and Schneider should not be repeated.

New Claims

By this amendment, claims 24-27 are added, and are believed to be patently distinct from the applied art. For example, claims 24-27 depend from allowable independent claims, and are allowable based upon the allowability of the respective independent claims. Moreover, the applied art does not disclose or suggest many of the features of these dependent claims.

For example, no proper combination of the applied art discloses or suggests the tongue and the groove on the transverse edge are designed such that two boards which are connected to one another at the transverse edges are not locked in a horizontal direction in relation to one another, as recited in claim 24; or that the transverse edge is devoid of structure that locks, in a horizontal direction, two boards which are connected to one another, as recited in claim 27. This is shown, for example, in Applicants' Figure 2 and paragraph 0022 of Applicants' published application. In direct contrast to Applicants' claimed invention, Palsson shows that the transverse edges of the boards have locking elements that lock the boards in the transverse direction.

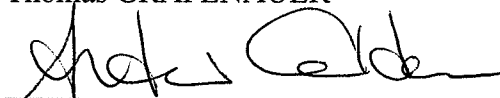
Furthermore, no proper combination of the applied art discloses or suggests the recess comprises a surface that is conterminous with the bevel and, in an assembled state, is substantially horizontal, as recited in claim 25. This is shown, for example, in Applicants' Figure 1. In contrast, Olofsson's recess 6 has angled walls that are not horizontal in the assembled state.

Even further, no proper combination of the applied art discloses or suggests a plurality of spaced apart recesses formed in a substantially flat surface of a bottom lip of the transverse edge, as recited in claim 26. Claim 26 depends from claim 20, which recites a plurality of spaced apart recesses formed in a concave recess. No reference applied by the Examiner suggests first spaced apart recesses formed in a concave recess along a longitudinal edge of a board and second spaced apart recesses formed in a flat surface along a transverse edge of the board.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants submit that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicants hereby make a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 19-0089.

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